




아리랑위성 영상품질 보고서

- 2016년 12월 -

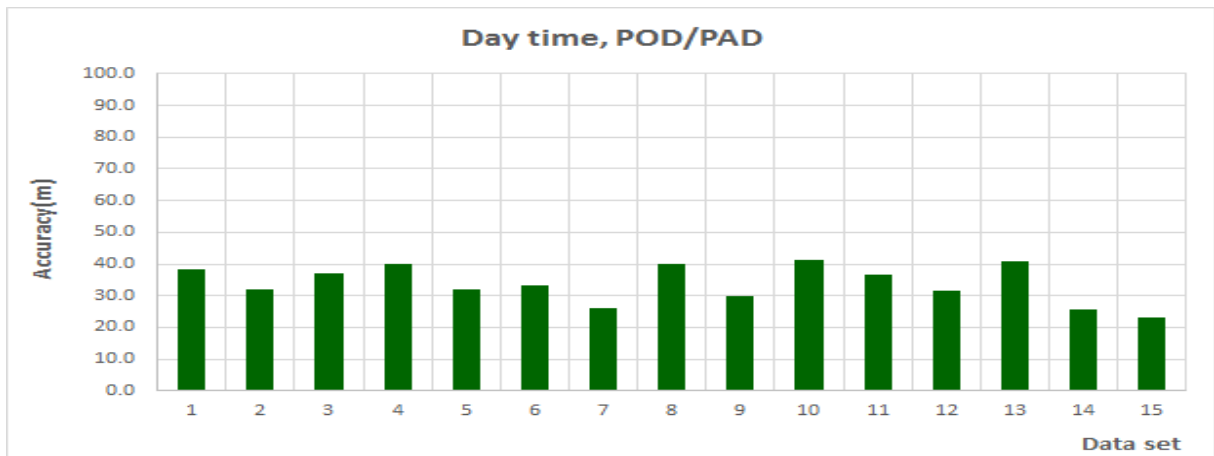
1. 광학위성 영상자료 품질

Satellite	Location(Geometric)	MTF(Spatial)	SNR(Radiometric)
 아리랑위성 2호	N/A	N/A	N/A
 아리랑위성 3호	31.0m RMSE	9.4 %	80
 아리랑위성 3A호	9.3m RMSE	10.5 %	57

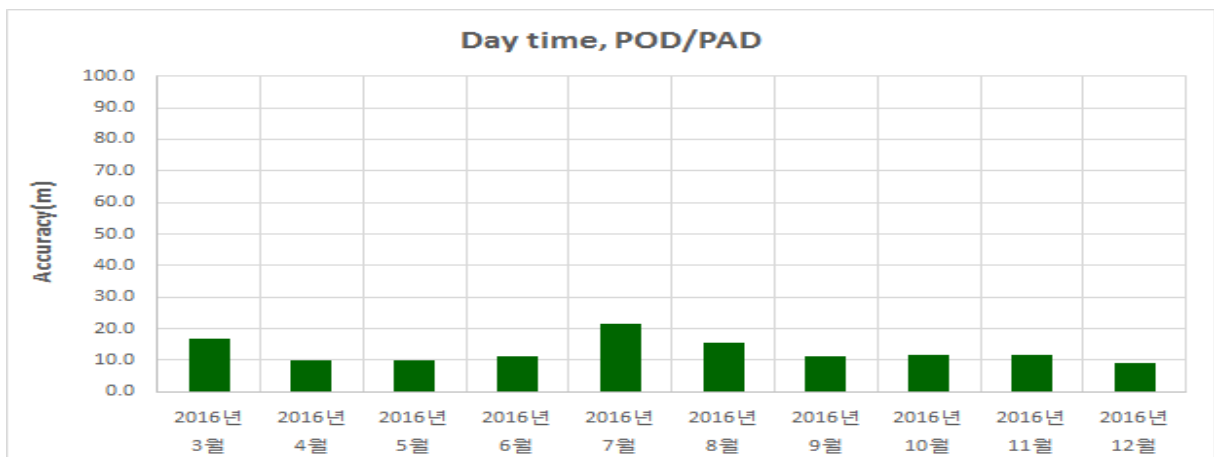
* 아리랑위성 2호 정상운영기간 검보정 작업 진행 중



아리랑위성 3호 Location Accuracy 측정치

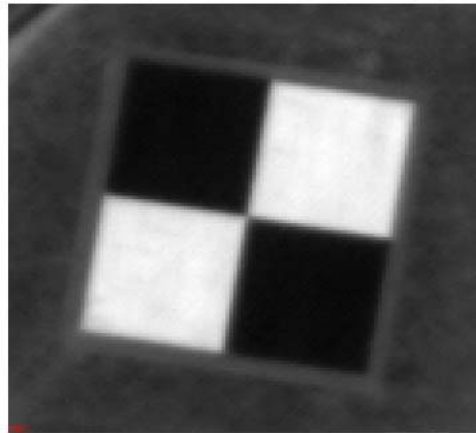


아리랑위성 3A호 Location Accuracy 측정치

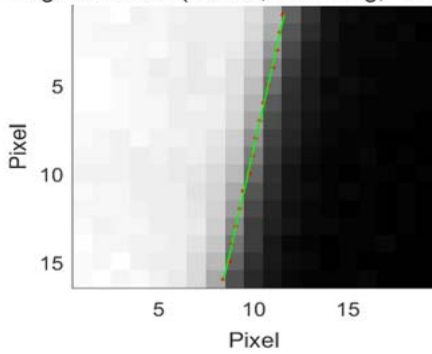




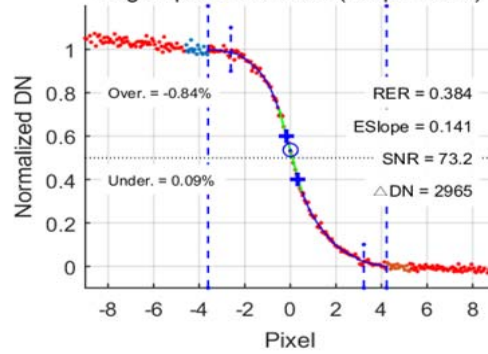
아리랑위성 3호 MTF 측정치



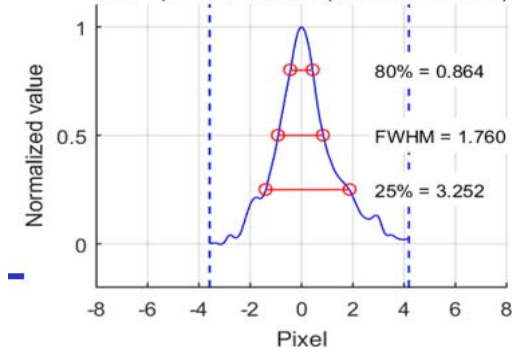
Edge Detection (Across, 11.93 deg, Fit Err: 3.0)



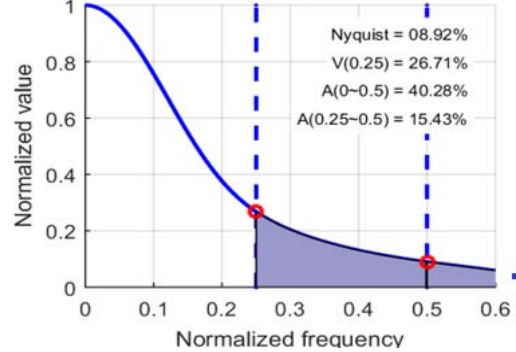
Edge Spread Function (csaps= 0.98)



Line Spread Function (Resolution: 0.06)

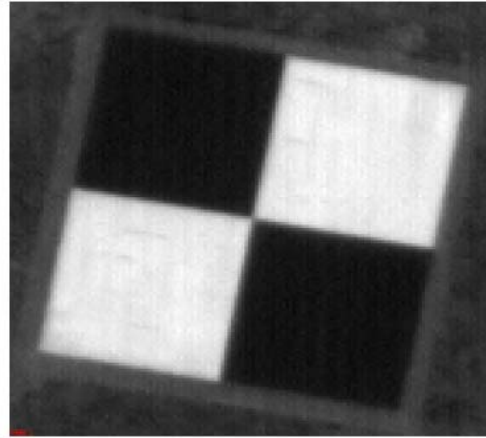


MTF

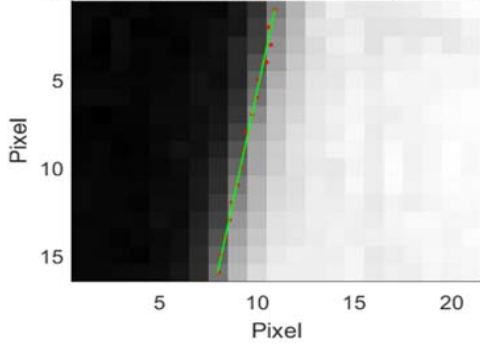




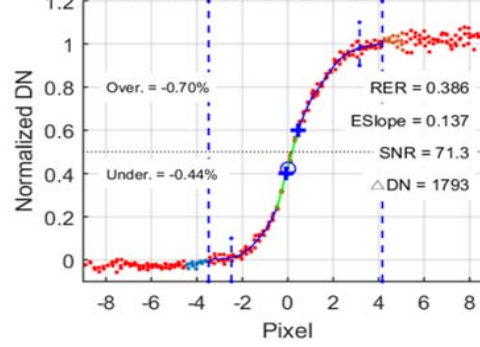
아리랑위성 3A호 MTF 측정치



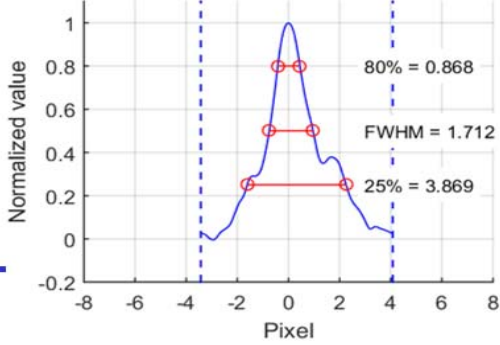
Edge Detection (Across, 11.08 deg, Fit Err:6.0)



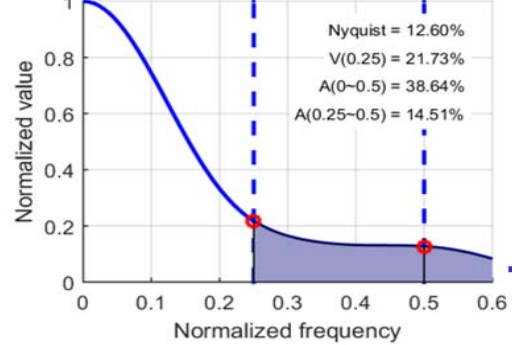
Edge Spread Function (csaps= 0.98)




Line Spread Function (Resolution: 0.06)



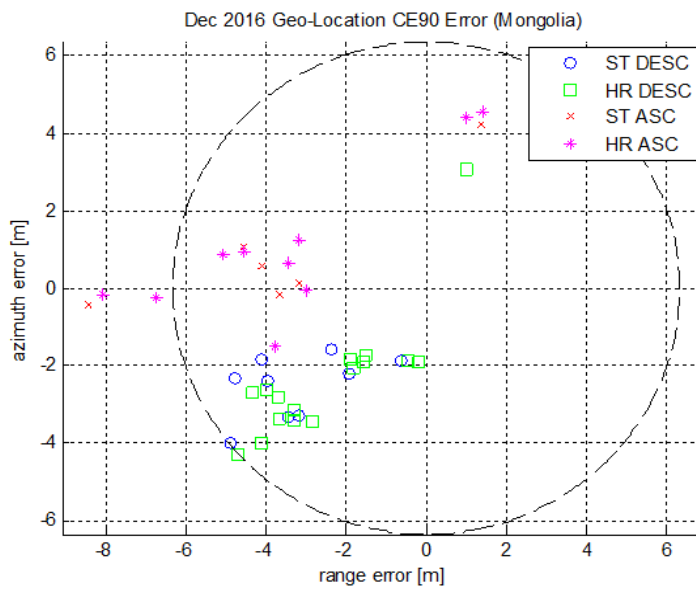
MTF



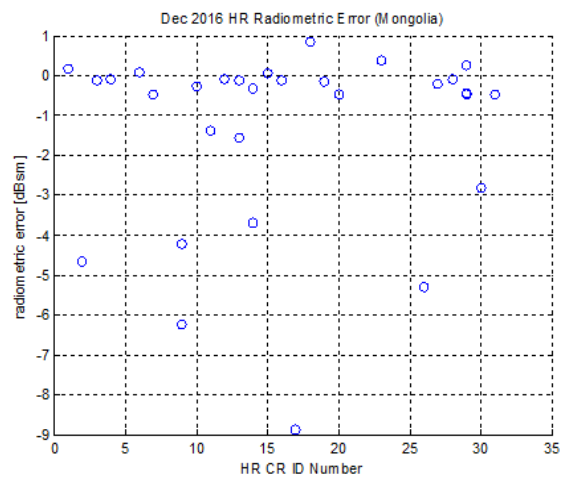
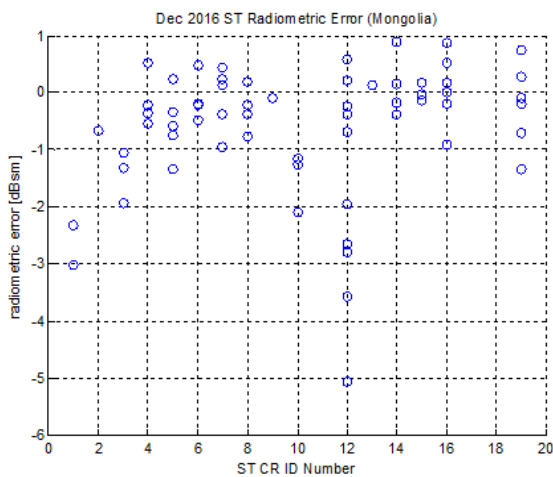
2. 레이더위성 영상자료 품질

Satellite	Location(Geometric)	Ground Resolution		
		ES	EH	UH
 아리랑위성 5호	6.34m CE90	< 2.5m	< 1m	< 0.85m

 아리랑위성 5호 Location Accuracy 및 Radiometric Error 측정치



[Location Accuracy, K5 HR & ST, '16.12]

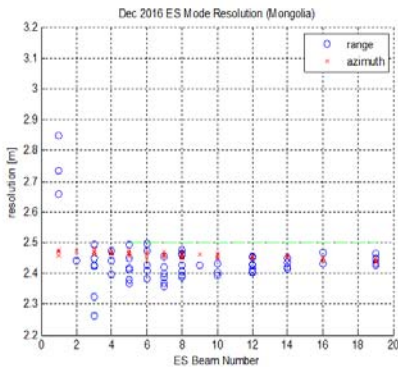


[Radiometric Error, K5 HR & ST, '16.12]

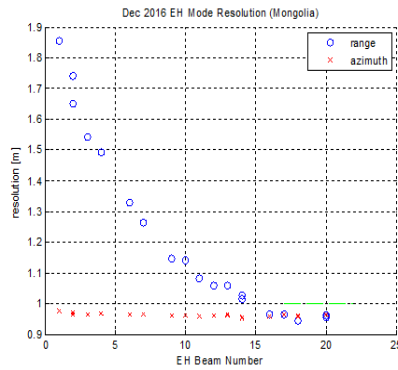
※ 11월 이후 측정 결과는 몽골 지역의 환경영향(Snow Cover)으로 Radiometric Error가 증가하는 경향을 보임



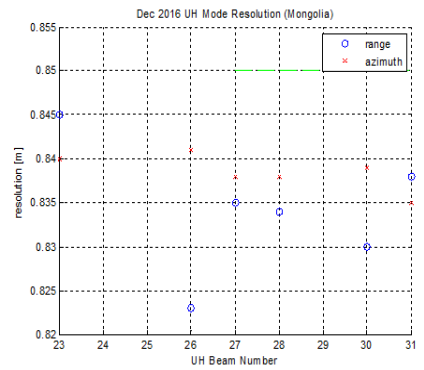
아리랑위성 5호 Ground Resolution 측정치



ES Mode < 2.5 m



EH Mode < 1 m

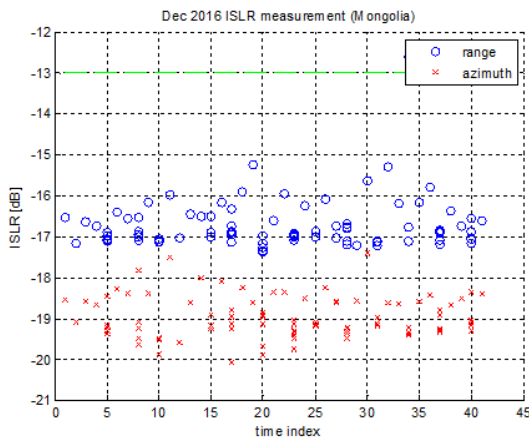


UH Mode < 0.85 m

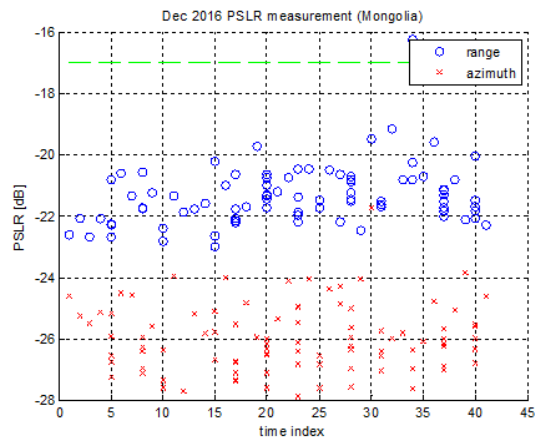
※ 모든 CR 영상에서의 resolution 측정치가 요구조건 만족



아리랑위성 5호 ISLR 및 PSLR 측정치



ISLR < -13 dBsm



PSLR < -17 dBsm

※ 일부 만족하지 못한 측정 결과는 몽골 지역의 환경영향(Snow Cover) 때문으로 판단됨